

Amendment to the Claims:

Please cancel claims 1-66 and replace with new claims 67-105.

This listing of the claims will replace all prior versions, and listings, of claims in the application.

Listing of the Claims:

67. (New) A method of producing obfuscated object code, the method comprising:
substituting a variable in source code with a selected function of the variable, and
compiling the source code to produce object code,
wherein the selected function is arranged to cause the variable to be presented in the
compiled object code as a series of operations.
68. (New) A method according to Claim 67, wherein the series of operations by which the
variable is presented is made up of arithmetic and/or logical operations, and wherein the series of
operations is arranged, upon running of the object code, to provide the variable.
69. (New) A method according to Claim 68, wherein the series of operations by which the
variable is presented comprises complementary operations arranged, upon running of the object
code, to provide the variable.
70. (New) A method according to Claim 67, wherein the source code involves stored
templates and the selected function is defined in a template of the source code, the template of
the source code defining a plurality of functions which are each arranged to compile to present
the variable as a series of operations, the method further comprising selecting one of the
functions to substitute for the variable in the source code.
71. (New) A method according to Claim 70, wherein a different key is associated with each
one of the functions in the template, and the method further comprises substituting the variable in
source code with the template and selecting one of the functions in the template by selecting the
key which is associated with said one function.
72. (New) A method according to Claim 67, wherein the source code is C⁺⁺.

73. (New) An executable program in object code, the program having been compiled from source code including variables, wherein a variable in the source code has been compiled to be presented as a series of operations in object code whereby the object code is obfuscated.

74. (New) An executable program according to Claim 73, wherein the series of operations by which the variable is presented is made up of arithmetic and/or logical operations, and wherein the series of operations is arranged, upon running of the object code, to provide the variable.

75. (New) An executable program according to Claim 73, wherein the series of operations by which the variable is presented comprises complementary operations arranged, upon running of the object code, to provide the variable.

76. (New) An executable program according to Claim 73, wherein the series of operations has been produced by substituting the variable in the source code with a selected function arranged to cause the variable to be presented in the compiled object code as a series of operations.

77. (New) An executable program according to Claim 76, wherein the source code involved stored templates and the selected function was defined in a template of the source code, and the template of the source code had defined a plurality of functions which were each arranged to compile to present the variable as a series of operations, and wherein one of the functions had been selected to substitute for the variable in the source code.

78. (New) A method of producing storage media having a secured executable program thereon, the method comprising the steps of securing an executable program by associating the executable program with a security program which is arranged to control access to the executable program, and applying the secured executable program to a storage media, and the method further comprising obfuscating the object code of the security program, wherein the object code of the security program has been obfuscated by substituting a variable in source code with a selected function of the variable, and compiling the source code to produce object code, the selected function causing the variable to be presented in the compiled object code as a series of operations.

79. (New) A method of producing storage media having a secured executable program thereon according to Claim 78, wherein the executable program and the security program are

associated at object code level, the security program being arranged to encrypt the executable program.

80. (New) A method of producing storage media having a secured executable program thereon according to Claim 78; further comprising moving blocks of the executable program out of the executable program and relocating the blocks in the security program.

81. (New) A method of producing storage media having a secured executable program thereon according to Claim 78, wherein the security program is arranged to require the running of an authentication program.

82. (New) A method of producing storage media having a secured executable program thereon according to Claim 78, wherein the source code of the security program involves stored arrays and templates and utilises pointers to navigate the arrays and templates.

83. (New) A method of producing storage media having a secured executable program thereon according to Claim 78, wherein the source code of the security program is C⁺⁺.

84. (New) A method of producing storage media having a secured executable program thereon according to Claim 78, wherein the storage media onto which the secured executable program is applied is an optical disc.

85. (New) A method of producing storage media having a secured executable program thereon according to Claim 84, wherein the secured executable program is applied to the optical disc by laser beam encoding.

86. (New) A method of producing storage media having a secured executable program thereon according to Claim 78, wherein the storage media onto which the secured executable program is applied is memory in, or associated with, servers, computers and/or other processing means.

87. (New) A storage media having a secured executable program thereon, wherein an executable program is secured by having a security program associated therewith, the security program being arranged to control access to the executable program, and wherein the security program is in object code which has been obfuscated, the security program having been compiled from source code including variables, and a variable in the source code of the security

program having been compiled to be presented in object code as a series of operations whereby the object code has been obfuscated.

88. (New) A storage media having a secured executable program thereon according to Claim 87, wherein the series of operations by which the variable is presented is made up of arithmetic and/or logical operations, and wherein the series of operations is arranged, upon running of the object code, to provide the variable.

89. (New) A storage media having a secured executable program thereon according to Claim 88, wherein the series of operations by which the variable is presented comprises complementary operations arranged, upon running of the object code, to provide the variable.

90. (New) A storage media having a secured executable program thereon according to Claim 87, wherein the executable program and the security program are associated at object code level, and wherein the executable program is encrypted on the storage media and the associated security program enables decryption of the executable program.

91. (New) A storage media having a secured executable program thereon according to Claim 87, wherein blocks from the executable program have been relocated within the security program.

92. (New) A storage media having a secured executable program thereon according to Claim 87, wherein the security program is arranged to require the running of an authentication program.

93. (New) A storage media having a secured executable program thereon according to Claim 87, wherein the storage media is an optical disc on which the executable program and the security program are encoded.

94. (New) A storage media having a secured executable program thereon according to Claim 93, wherein the optical disc is one of: a CD, a CD-ROM, and a DVD.

95. (New) A storage media having a secured executable program thereon according to Claim 87, wherein the storage media is memory in, or associated with, servers, computers and/or processing means and on which the executable program and the security program are stored.

96. (New) A storage media having a secured executable program thereon according to Claim

87, wherein the executable program is one or more of: a games program; a video program; an audio program; and other software.

97. (New) A method of controlling a processor to run a program comprising:
translating instructions from the program into a reduced instruction set format to which said processor is not responsive,
causing the translated instructions to be applied to a virtual processor which is responsive to the reduced instruction set format, and
causing the virtual processor to run the instructions applied thereto and to apply a series of simple instructions, to which the processor is responsive, to the processor.

98. (New) A method of controlling a processor to run a program according to Claim 97, further comprising encrypting the translated instructions to be applied to the virtual processor, and enabling the virtual processor to respond to the encrypted instructions without decrypting them.

99. (New) A method of controlling a processor to run a program according to Claim 98, further comprising utilising templates to translate and encrypt the instructions, a selected template providing a series of instructions in the reduced instruction set format for each instruction from the program, wherein the templates define a plurality of series of instructions in the reduced instruction set format for an instruction in the program, the method further comprising selecting one of said plurality of series of instructions to be the translation for said instruction.

100. (New) A method of controlling a processor to run a program according to Claim 99, wherein a different key is associated with each one of the plurality of series of instructions in the reduced instruction set format in the template, and wherein the method further comprises selecting a key which is associated with one of said plurality of series of instructions and translating the instruction in the program to the one of said plurality of series of instructions which is associated with the selected key.

101. (New) A storage media having a secured executable program thereon, wherein an executable program is secured by having a security program and an emulation program associated therewith, the security program being arranged to control access to the executable program, and the emulation program causing predetermined functions or routines of the executable program to be run on a virtual processor provided by said emulation program,

wherein the emulation program is arranged to translate instructions from the executable program into a reduced instruction set format, to cause the translated instructions to be applied to the virtual processor, and to cause the virtual processor to run the instructions applied thereto and to output a series of simple instructions for application to a processor.

102. (New) A storage media having a secured executable program thereon according to Claim 101, wherein the storage media is an optical disc on which the executable program, the security program and the emulation program are encoded.

103. (New) A storage media having a secured executable program thereon according to Claim 102, wherein the optical disc is one of: a CD, a CD-ROM and a DVD.

104. (New) A storage media having a secured executable program thereon according to Claim 101, wherein the storage media is memory in, or associated with, servers, computers and/or other processing means and on which the security program and the emulation program are stored.

105. (New) A storage media having a secured executable program thereon according to Claim 101, wherein the executable program is a games program and/or a video program and/or an audio program, and/or other software.